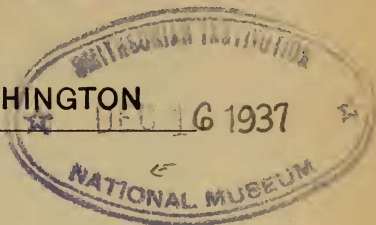


PROCEEDINGS  
OF THE  
BIOLOGICAL SOCIETY OF WASHINGTON



FOUR NEW RODENTS FROM MONTEREY COUNTY,  
CALIFORNIA.

BY JACK C. VON BLOEKER, JR.

*Museum of Vertebrate Zoology, University of California.*

Field work in Monterey County, California, in the summer of 1936, has revealed the existence there of four hitherto apparently unknown subspecies of rodents. Discussion of the ecological relationships of these forms is reserved for a later account of all the mammals of this region, sponsored by Mr. O. P. Silliman, of Salinas, California, who has deposited the type specimens in the Museum of Vertebrate Zoology. The new races may be described as follows:

***Perognathus longimembris psammophilus*, subsp. nov.**

SOLEDAD POCKET MOUSE.

*Type*.—♀ subadult, skin and skull, no. 74681, Museum of Vertebrate Zoology, from the west side of Arroyo Seco Wash, 150 feet altitude, four miles south of Soledad, Monterey County, California, June 5, 1936, collected by Jack C. von Bloeker, Jr., orig. no. 6209.

*Distribution*.—In so far as known, occurs in fine-textured sandy areas in the Salinas Valley and Carrizo Plains region of south-central California, from Soledad, Monterey County, southeast at least to Santiago Springs, San Luis Obispo County, California.

*Diagnosis*.—A small (see measurements), short-tailed, dark-colored pocket mouse of the *longimembris* group, with the belly hairs entirely white; upper surface of feet whitish; lower surface of tail light ochraceous buff; skull short and narrow, with slender rostrum and medium-sized mastoid bullae.

*Comparisons*.—Compared with *Perognathus longimembris longimembris*, body larger; tail actually and relatively shorter; hind foot larger; color averages darker dorsally, pinkish cinnamon colored lateral stripe averages broader. Skull relatively broader; rostrum broader, mastoids larger. Compared with *Perognathus longimembris brevinasus*, body of similar size;

tail actually and relatively shorter; color averages darker dorsally, with lateral stripe darker. Skull longer and relatively narrower, with mastoids and rostrum similar in size. Compared with *Perognathus longimembris cantwelli*, body averages longer; tail actually and relatively shorter; color averages lighter dorsally, with less prominent and lighter lateral stripe. Skull actually and relatively longer and narrower, with larger mastoids and broader rostrum.

*Color* (using color terms from Ridgway's *Color Standards and Color Nomenclature*, 1912).—Type (near mean of June-taken series of adults and subadults): Dorsal hairs with terminal portions black, subterminal bands chamois, brightening to cinnamon buff on the lateral stripe; basal portions of dorsal hairs slate gray. Ventral body hairs and hairs of upper surface of feet entirely white. Tail bicolor, with a faint dorsal stripe terminating in a distinct black tip, sides and ventral surface of tail light ochraceous buff. Hairs at base of vibrissae black.

Pronounced seasonal variation in color occurs; specimens taken in late summer are paler, presumably due to wearing-off of the terminal portions of the dorsal hairs.

*Measurements* (in millimeters).—Averages and extremes of eight subadults, four males and four females, paratypes: Total length, 130 (127–136); tail, 63 (58–69); hind foot, 18 (17–19); ear, from notch, 6.4 (5–7). Skull: Occipito-nasal length, 20.7 (20.5–21.0); fronto-nasal length, 13.6 (13.2–13.9); greatest mastoid breadth, 10.8 (10.5–11.0); length of mastoid, 8.0 (7.7–8.3); distance between stylo-mastoid foramina, 9.9 (9.8–10.1); least interorbital breadth, 4.9 (4.8–5.0).

*Specimens examined*.—Unless otherwise indicated, specimens are in the collection of O. P. Silliman, on loan at the Museum of Vertebrate Zoology. Eleven, from the following localities in California: MONTEREY COUNTY: Arroyo Seco Wash, 150 feet, four miles south of Soledad, 8;<sup>1</sup> Metz, 200 feet, Salinas Valley, 1; SAN LUIS OBISPO COUNTY: Salinas Valley, two miles south of San Miguel, 1;<sup>2</sup> Sandiego Joe's (= Santiago Springs), 2600 feet, 1.<sup>2</sup>

### *Perognathus inornatus sillimani*, subsp. nov.

#### SILLIMAN POCKET MOUSE.

*Type*.—♀ adult, skin and skull, no. 74682, Mus. Vert. Zool., from the west side of Arroyo Seco Wash, 150 feet altitude, four miles south of Soledad, Monterey County, California, August 3, 1936, collected by Jack C. von Bloeker, Jr., orig. no. 6997.

*Distribution*.—In so far as known, confined to dry sandy washes in the Salinas Valley, California, from Soledad, Monterey County, south at least to San Miguel, San Luis Obispo County.

*Diagnosis*.—A moderately large (see measurements), short-tailed, dark-colored pocket mouse of the *inornatus* group, with the belly hairs entirely white; upper surface of feet whitish; lower surface of tail warm buff; skull, short and broad, with tapering rostrum and large mastoid bullae.

<sup>1</sup> One in Museum of Vertebrate Zoology.

<sup>2</sup> Museum of Vertebrate Zoology.

*Comparisons.*—Compared with *Perognathus inornatus inornatus*, body larger; tail actually and relatively shorter; hind foot larger; ear larger; color averages darker dorsally, including even the ears; pinkish cinnamon colored lateral stripe averages broader and contrasts sharply with the darker dorsal region. Skull actually and relatively broader, mastoids larger, interorbital breadth greater. Compared with *Perognathus inornatus neglectus*, body relatively longer; tail actually and relatively shorter; hind foot smaller; ear larger; color averages darker and lateral stripe is broader and more prominent. Skull shorter and relatively broader, rostrum shorter and narrower, mastoids smaller, interorbital breadth greater.

*Color.*—Type (near mean of August-taken adults): Dorsal hairs with terminal portions black, subterminal bands ochraceous buff, brightening to pinkish cinnamon on the lateral stripe; basal portions of dorsal hairs light violet-gray. Hairs of ventral surface of body and upper surface of feet entirely white. Tail indistinctly bicolor, with grayish dorsal stripe terminating in a blackish tip, sides and ventral surface of tail pinkish cinnamon.

*Measurements.*—Averages and extremes of eight adults, two males and six females, paratypes: Total length, 142 (138–147); tail, 67 (63–70); hind foot, 19 (19); ear, from notch, 7 (6–8). Skull: Occipito-nasal length, 22.4 (22.1–22.8); fronto-nasal length, 15.1 (14.9–15.2); greatest mastoid breadth, 13.3 (13.0–13.9); length of mastoid, 8.3 (8.0–8.5); distance between stylo-mastoid foramina, 10.7 (10.5–10.9); least interorbital breadth, 5.2 (5.0–5.5).

*Specimens examined.*—Eleven, from the following localities in California: MONTEREY COUNTY: Arroyo Seco Wash, 150 feet, four miles south of Soledad, 5;<sup>3</sup> mouth of Wild Horse Canyon, 500 feet, 1; Hog Canyon, 1;<sup>4</sup> SAN LUIS OBISPO COUNTY: Salinas Valley, two miles south of San Miguel, 4,<sup>5</sup>

*Reithrodontomys megalotis distichlis*, subsp. nov.

MONTEREY BAY HARVEST MOUSE.

*Type.*—♂ adult, skin and skull, no. 74683, Mus. Vert. Zool., from the salt-marsh at the mouth of the Salinas River, Monterey County, California, June 10, 1936, collected by Jack C. von Bloeker, Jr., orig. no. 6271.

*Distribution.*—Coastal salt-marshes and sandhill region in the vicinity of the sea-coast in Monterey County, California, from the mouth of Elkhorn Slough, Moss Landing, south to Seaside Lagoon. Found particularly in association with salt-grass (*Distichlis*) and pickle-weed (*Salicornia*).

*Diagnosis.*—A medium-sized (see measurements), dark-colored harvest mouse of the *megalotis* group; belly hairs with basal third slate color and terminal portion cartridge buff; tail bicolor, deep slaty brown above and white below; skull small, with comparatively weak zygomatic arches.

*Comparisons.*—Compared with *Reithrodontomys megalotis longicaudus*,

<sup>3</sup> One in Museum of Vertebrate Zoology.

<sup>4</sup> Los Angeles Museum.

<sup>5</sup> Museum of Vertebrate Zoology.

body, tail, and hind foot shorter; ear smaller; color averages darker dorsally, being almost black over broad mid-dorsal area. Skull smaller throughout, zygomatic arch less sharply decurved and more delicate. Compared with *Reithrodontomys megalotis limicola*, body larger; tail actually and relatively shorter; ear smaller, color averages slightly darker dorsally and ventrally. Skull smaller throughout, zygomatic arch relatively weaker.

This race is distinguishable from *Reithrodontomys raviventris raviventris* and *Reithrodontomys raviventris halicoetes* by the specific characters which separate the two groups, *megalotis* and *raviventris*. The races of *raviventris* are externally larger in size throughout and have a greater concentration of reddish pigment in the subterminal bands of the dorsal hairs. Also the skull is larger, with a relatively shorter rostrum, shorter nasals and palatal foramina, and the zygomas are more widely expanded anteriorly.

*Color.*—Type (near mean of June-taken series of adults): Dorsal hairs with terminal portions black, narrow subterminal bands cinnamon buff, basal portions slate black. Hairs of ventral region slate color in basal third and tipped with cartridge buff. Hairs of upper surface of feet and ventral surface of tail entirely white; hairs of dorsal surface of tail deep slaty brown. Hairs at base of vibrissae black.

*Measurements.*—Series selected for comparable age on basis of molar development, only those with fully developed, yet unworn, molars are represented. Averages and extremes of eight adults, three males and five females, paratypes: Total length, 143 (134–148); tail, 75 (70–78); hind foot, 16.7 (16–17); ear, from notch, 13.3 (13–14). Skull: Condyllo-basal length, 17.8 (17.0–18.5); occipito-nasal length, 19.8 (19.3–20.1); width of cranium, 9.9 (9.7–10.2); height of cranium at bullae, 7.6 (7.4–7.9); mastoid width, 9.3 (9.1–9.6); zygomatic width, 9.6 (9.3–10.0); least interorbital breadth, 3.1 (3.0–3.3); upper molar series, 3.0 (2.9–3.1).

*Specimens examined.*—Twenty-nine, all from California, as follows: MONTEREY COUNTY: Mouth of Elkhorn Slough (salt-marsh), 2; Moss Landing (salt-marshes and sandhills), 7; mouth of Salinas River (salt-marsh and sandhills), 4;<sup>6</sup> west side of Salinas River, 50 feet, five miles west of Salinas (sandhills), 1; Marina (salt-marsh), 1; Camp Ord, 100 feet, three and one-half miles east of Marina (sandhills), 1; Indian Harbor, one and one-half miles south of Marina (sandhills), 3; Seaside (salt-marsh), 10.<sup>7</sup>

### ***Microtus californicus halophilus*, subsp. nov.**

#### MONTEREY BAY MEADOW MOUSE.

*Type.*—♀ adult, skin and skull, no. 74684, Mus. Vert. Zool., from Moss Landing, Monterey County, California, August 11, 1936, collected by Jack C. von Bloeker, Jr., orig. no. 7079.

*Distribution.*—A medium-sized (see measurements), dark-colored meadow mouse of the *californicus* group, with the ventral hairs dark plumbeous basally and tipped with pale violet gray; tail distinctly bicolor,

<sup>6</sup> One in Museum of Vertebrate Zoology.

<sup>7</sup> Seven in Museum of Vertebrate Zoology.

mummy brown above and whitish below; skull short and narrow, with short, stocky rostrum.

*Comparisons.*—Compared with *Microtus californicus californicus*, total length averages less; body length actually and relatively less; tail shorter; hind foot smaller; color averages darker throughout. Skull shorter and relatively broader throughout. Compared with *Microtus californicus sanctidiegi*, actually and relatively smaller throughout; color averages darker. Skull smaller. Compared with *Microtus californicus paludicola*, total length, tail, and body length averages less; color averages darker. Skull smaller throughout. Compared with *Microtus californicus stephensi*, smaller throughout; color averages lighter.

*Color.*—Type (near mean of August-taken series of adults): Dorsal hairs with terminal portions black, narrow subterminal bands cream buff, basal portions blackish plumbeous. Ventral hairs dark plumbeous basally and tipped with pale violet gray. Hairs of upper surface of tail mummy brown, hairs of ventral surface of tail and upper surface of feet whitish.

*Measurements.*—Specimens selected for comparable age on basis of development of the supraorbital ridges, those with prominently well-developed, yet separate, ridges being used. Older specimens show these ridges fused together into a single median knife-like crest, while younger specimens have the ridges weakly developed and widely separated. Averages and extremes of ten adults, six males and four females, paratypes: Total length, 163 (153–173); tail, 46 (43–52); hind foot, 21 (20–22); ear, from notch, 14.7 (14–15). Skull: Condylar-basal length, 26.2 (25.2–26.8); occipito-nasal length, 25.5 (25.0–26.1); height of cranium at bullae, 10.1 (9.8–10.5); mastoid width, 12.7 (12.0–13.3); zygomatic width, 15.2 (14.3–16.2); least interorbital breadth, 3.5 (3.2–3.7); upper molar series, 6.3 (6.0–6.7).

*Specimens examined.*—One hundred and twenty, all from California, as follows: MONTEREY COUNTY: Mouth of Elkhorn Slough (salt-marsh), 5; Moss Landing (salt-marshes and sandhills), 32;<sup>8</sup> mouth of Tembladero Slough (salt-marsh), 23; mouth of Salinas River (salt-marsh and sandhills), 18;<sup>8</sup> Marina (salt-marsh), 2; Camp Ord, 100 feet, three and one-half miles east of Marina (sandhills), 4; Indian Harbor, 50 feet, one and one-half miles south of Marina (sandhills), 5; Seaside (salt-marsh and sandhills), 31.<sup>9</sup>

---

<sup>8</sup> One in Museum of Vertebrate Zoology.

<sup>9</sup> Four in Museum of Vertebrate Zoology.